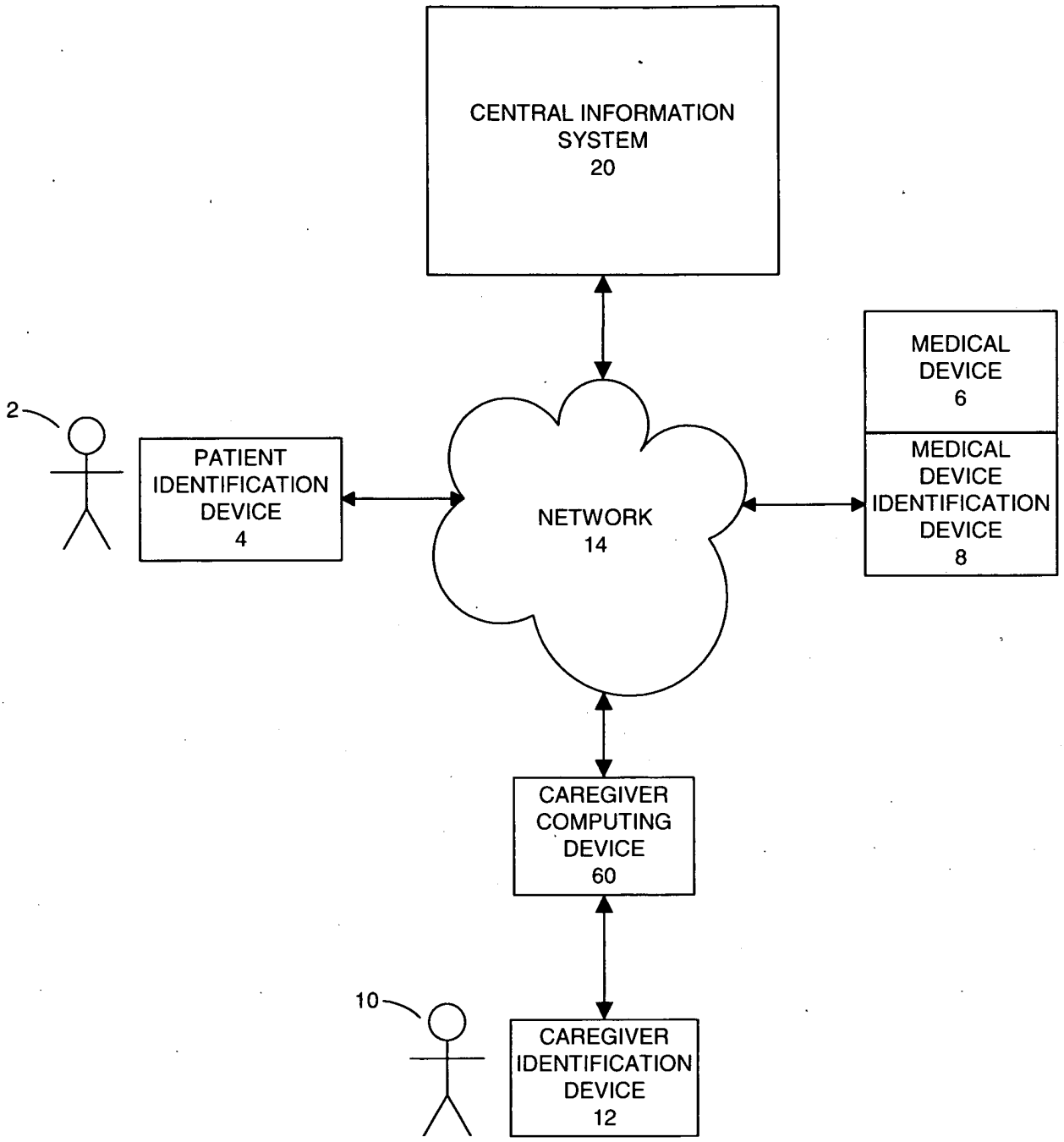
CENTRAL INFORMATION SYSTEM
20
MEDICAL DEVICE
6
MEDICAL DEVICE IDENTIFICATION DEVICE
8
2
PATIENT IDENTIFICATION DEVICE
4
NETWORK
14
CAREGIVER COMPUTING DEVICE
60
10
CAREGIVER IDENTIFICATION DEVICE
12

FIG. 1

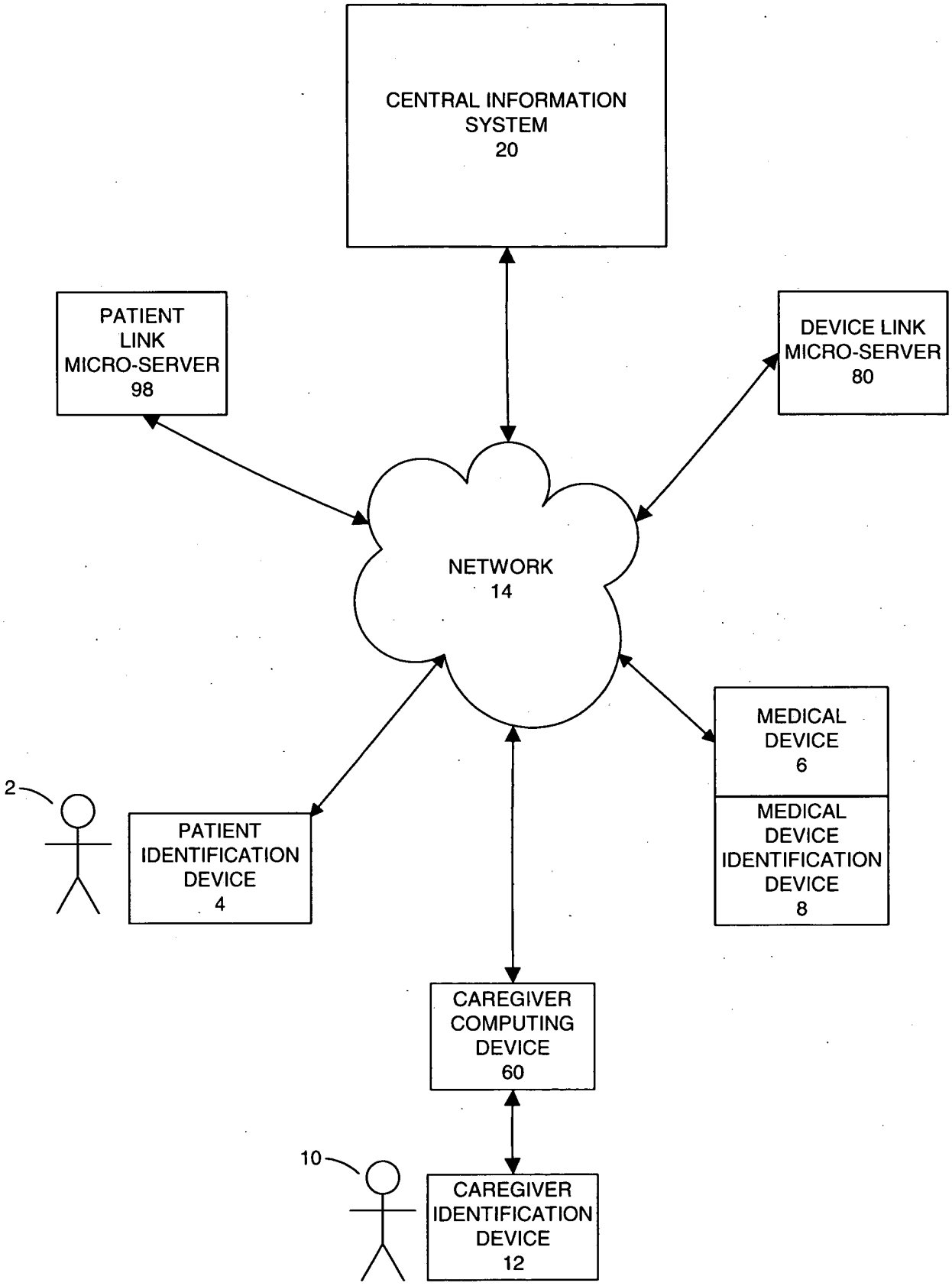
CENTRAL INFORMATION SYSTEM 20
PATIENT LINK MICRO-SERVER 98
DEVICE LINK MICRO-SERVER 80
NETWORK 14
MEDICAL DEVICE 6
MEDICAL DEVICE IDENTIFICATION DEVICE 8
2
PATIENT IDENTIFICATION DEVICE 4
CAREGIVER COMPUTING DEVICE 60
10
CAREGIVER IDENTIFICATION DEVICE 12

FIG. 2

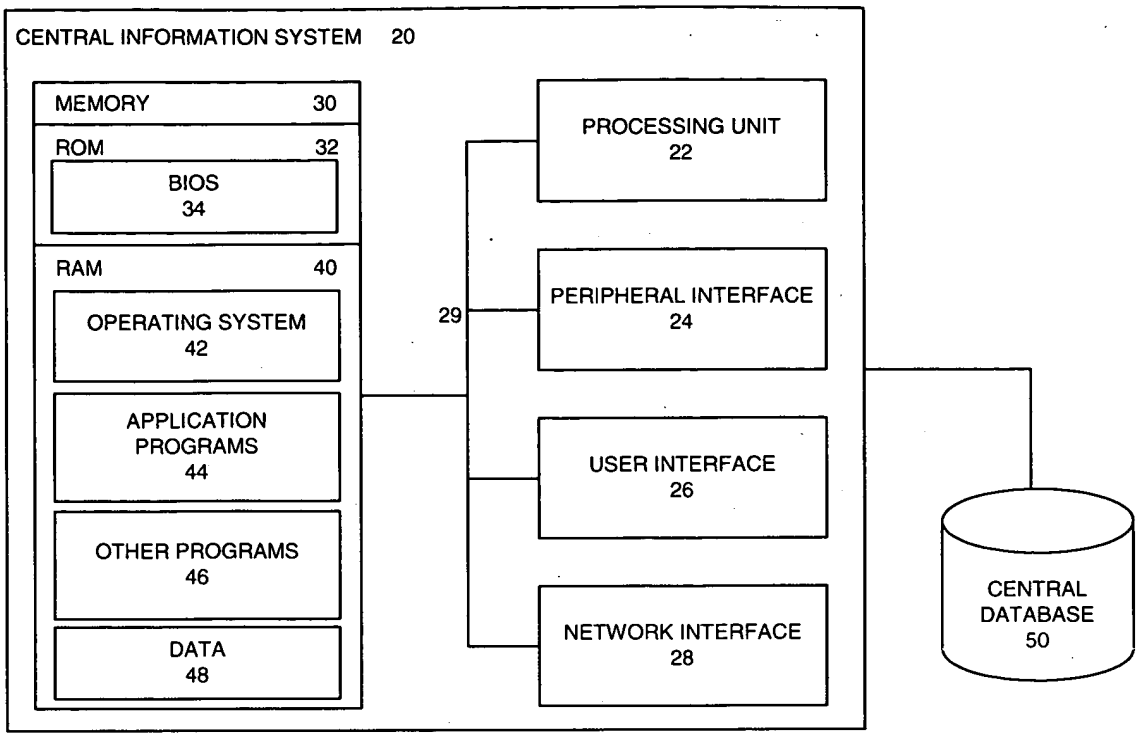
CENTRAL INFORMATION SYSTEM 20
MEMORY 30
ROM 32
BIOS 34
RAM 40
OPERATING SYSTEM 42
APPLICATION PROGRAMS 44
OTHER PROGRAMS 46
DATA 48
29
PROCESSING UNIT 22
PERIPHERAL INTERFACE 24
USER INTERFACE 26
NETWORK INTERFACE 28
CENTRAL DATABASE 50

FIG. 3

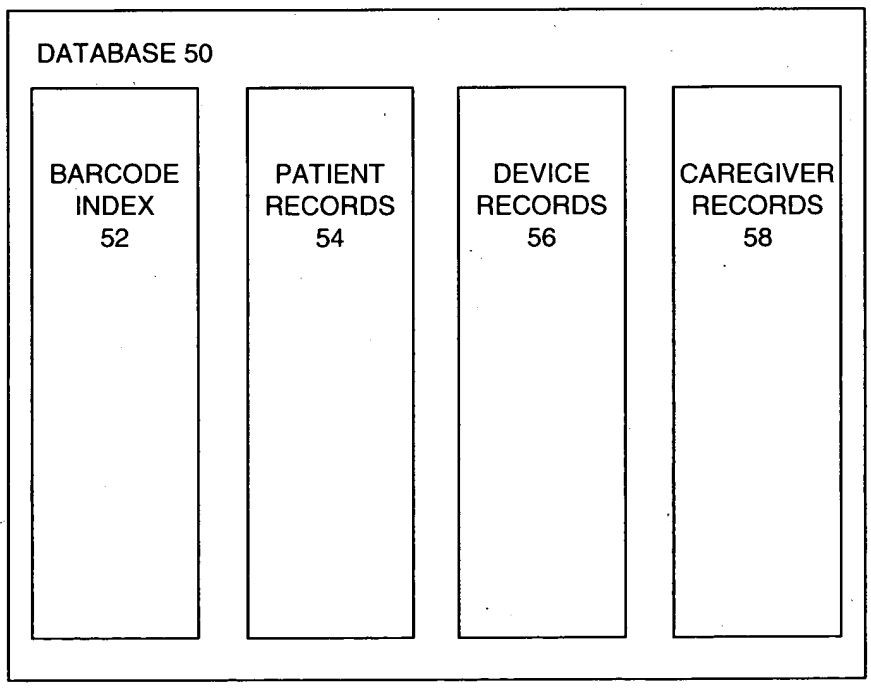
DATABASE 50
BARCODE INDEX 52
PATIENT RECORDS 54
DEVICE RECORDS 56
CAREGIVER RECORDS 58

FIG. 4

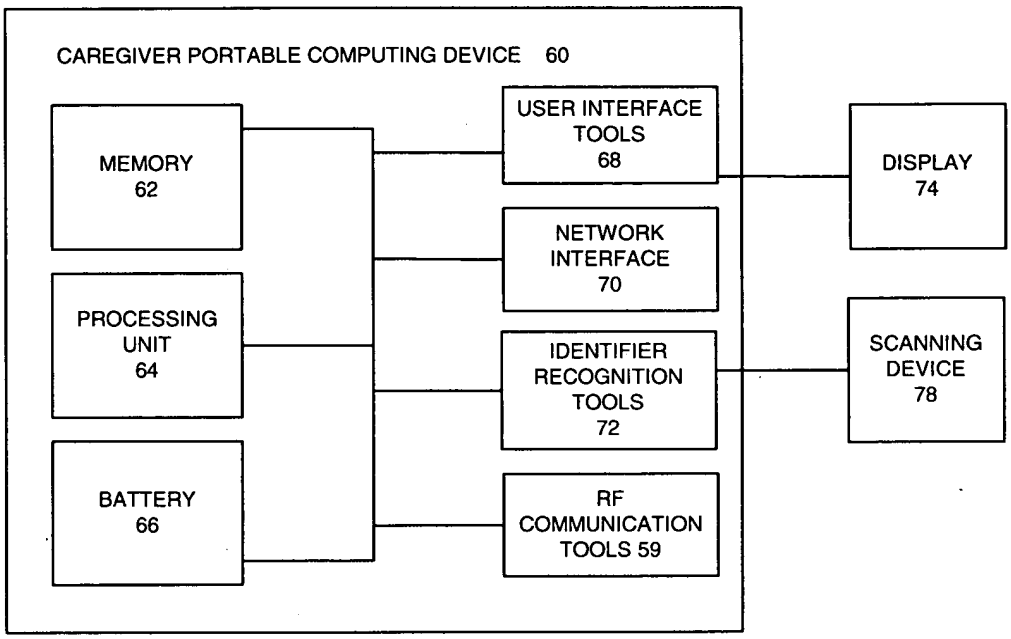
CAREGIVER PORTABLE COMPUTING DEVICE 60
MEMORY 62
PROCESSING UNIT 64
BATTERY 66
USER INTERFACE TOOLS 68
NETWORK INTERFACE 70
IDENTIFIER RECOGNITION TOOLS 72
RF COMMUNICATION TOOLS 59
DISPLAY 74
SCANNING DEVICE 78

FIG. 5

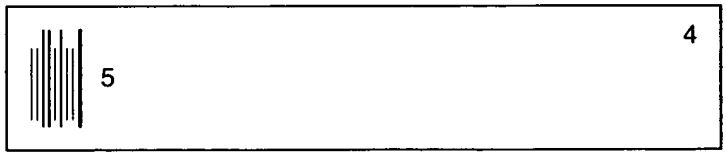
4
5

FIG. 6

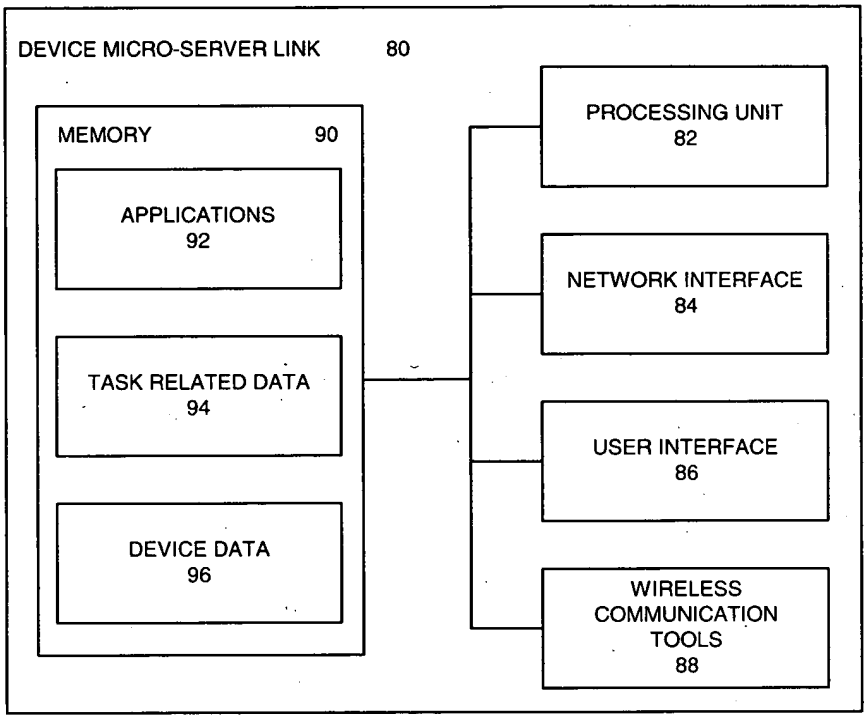
DEVICE MICRO-SERVER LINK
80
MEMORY
90
APPLICATIONS
92
TASK RELATED DATA
94
DEVICE DATA
96
PROCESSING UNIT
82
NETWORK INTERFACE
84
USER INTERFACE
86
WIRELESS
COMMUNICATION
TOOLS
88

FIG. 7

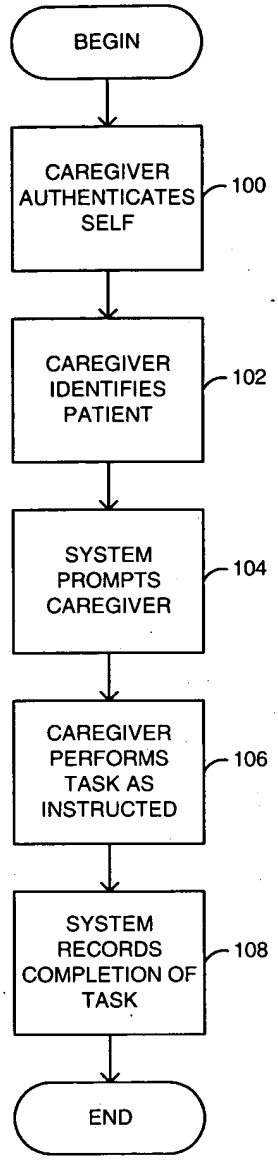
BEGIN
CAREGIVER AUTHENTICATES SELF
100
CAREGIVER IDENTIFIES PATIENT
102
SYSTEM PROMPTS CAREGIVER
104
CAREGIVER PERFORMS TASK AS INSTRUCTED
106
SYSTEM RECORDS COMPLETION OF TASK
108
END

FIG. 8

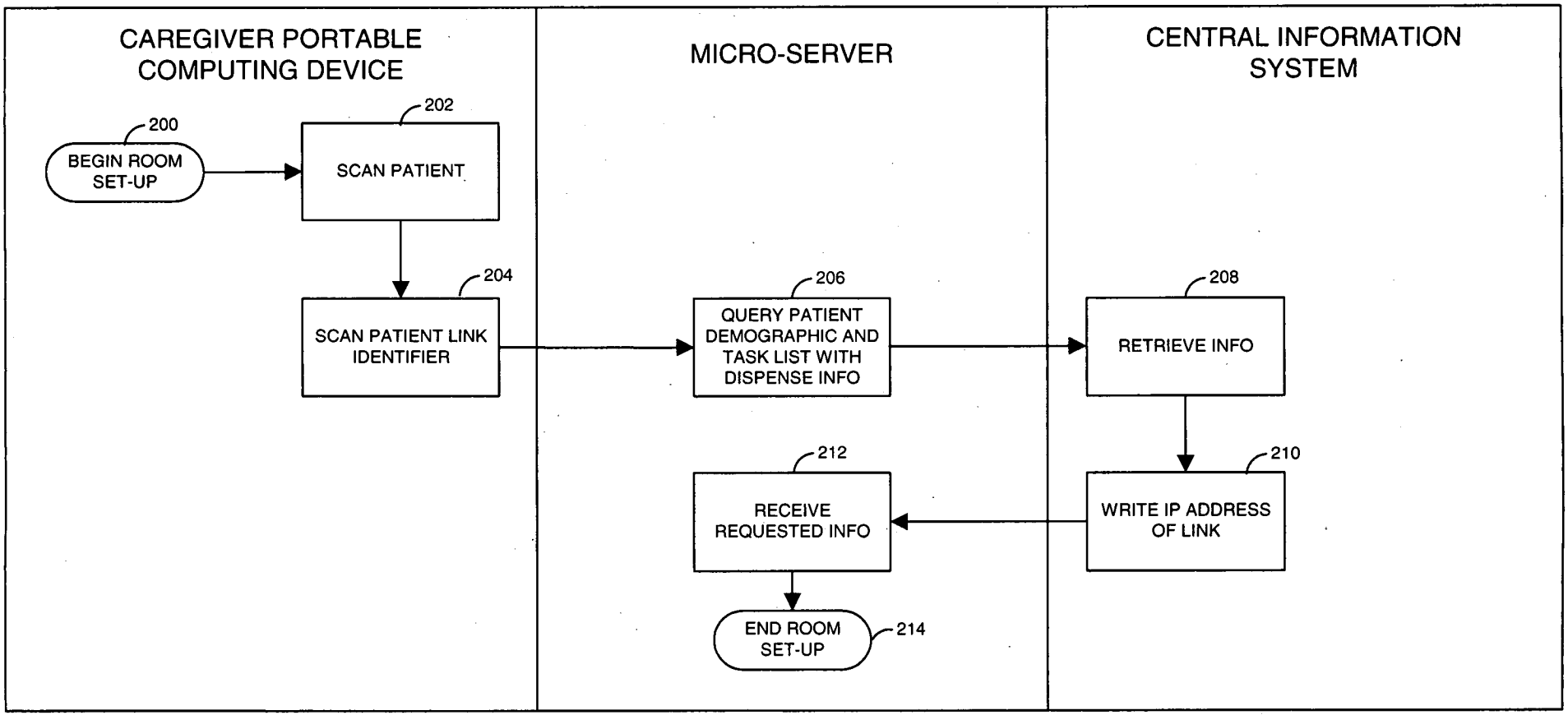
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
200
BEGIN ROOM SET-UP
202
SCAN PATIENT
204
SCAN PATIENT LINK IDENTIFIER
206
QUERY PATIENT DEMOGRAPHIC AND TASK LIST WITH DISPENSE INFO
208
RETRIEVE INFO
210
WRITE IP ADDRESS OF LINK
212
RECEIVE REQUESTED INFO
214
END ROOM SET-UP

FIG. 9

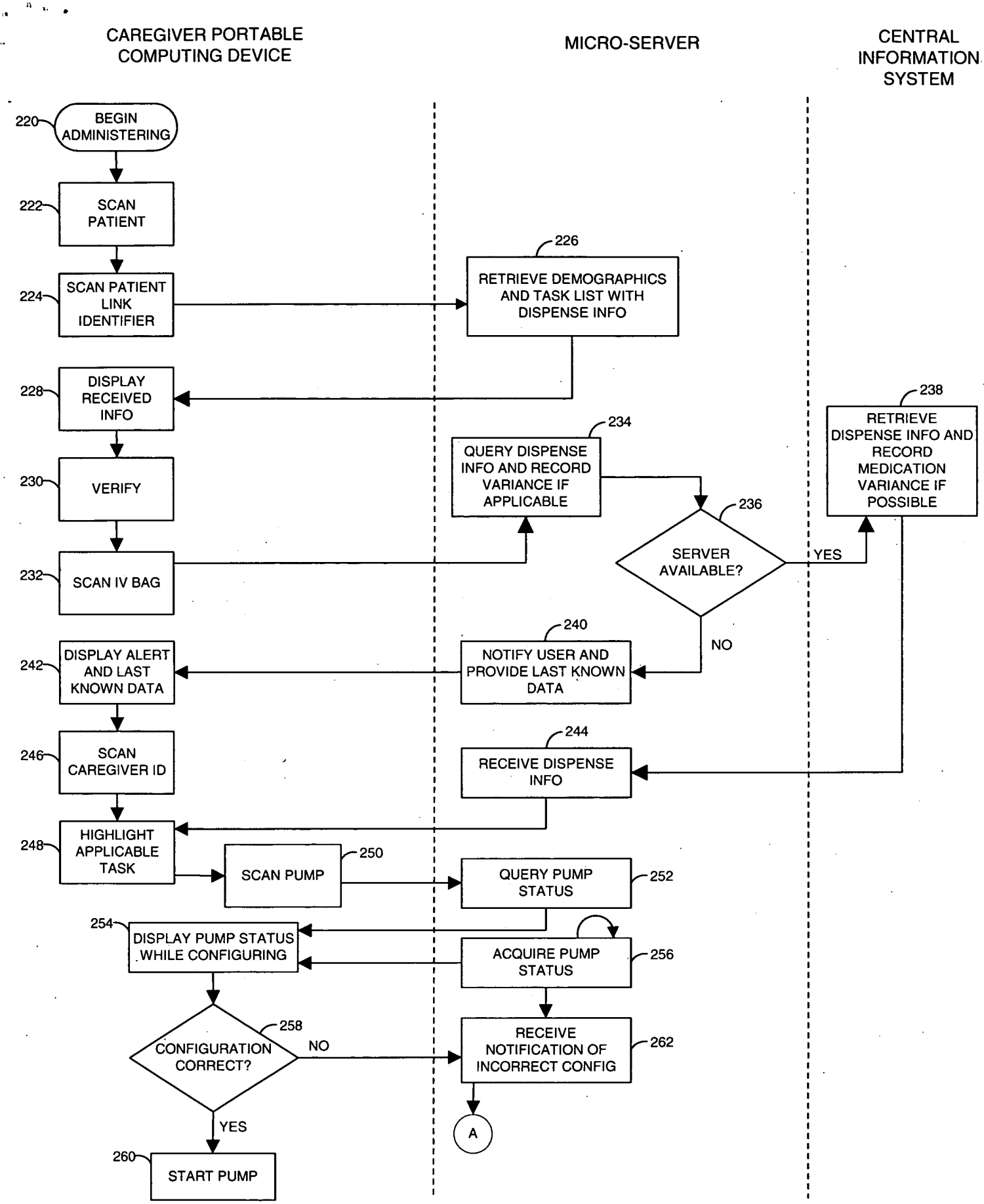
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
220
BEGIN ADMINISTERING
222
SCAN PATIENT
224
SCAN PATIENT LINK IDENTIFIER
226
RETRIEVE DEMOGRAPHICS AND TASK LIST WITH DISPENSE INFO
228
DISPLAY RECEIVED INFO
230
VERIFY
232
SCAN IV BAG
234
QUERY DISPENSE INFO AND RECORD VARIANCE IF APPLICABLE
236
SERVER AVAILABLE?
YES
NO
238
RETRIEVE DISPENSE INFO AND RECORD MEDICATION VARIANCE IF POSSIBLE
240
NOTIFY USER AND PROVIDE LAST KNOWN DATA
242
DISPLAY ALERT AND LAST KNOWN DATA
244
RECEIVE DISPENSE INFO
246
SCAN CAREGIVER ID
248
HIGHLIGHT APPLICABLE TASK
250
SCAN PUMP
252
QUERY PUMP STATUS
254
DISPLAY PUMP STATUS WHILE CONFIGURING
256
ACQUIRE PUMP STATUS
258
CONFIGURATION CORRECT?
NO
YES
262
RECEIVE NOTIFICATION OF INCORRECT CONFIG
A
260
START PUMP

FIG. 10A

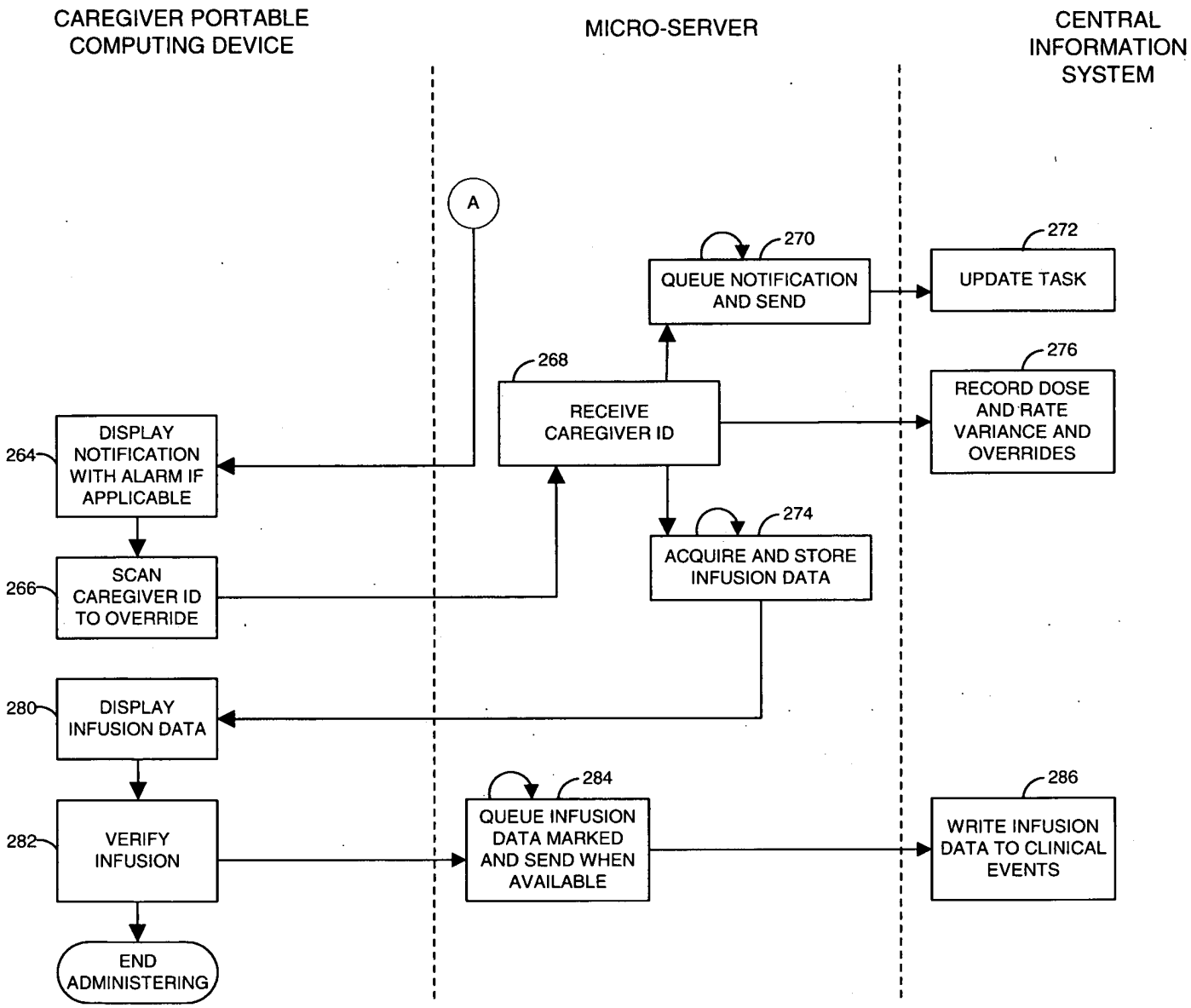
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
A
270
QUEUE NOTIFICATION AND SEND
272
UPDATE TASK
268
RECEIVE CAREGIVER ID
276
RECORD DOSE AND RATE VARIANCE AND OVERRIDES
264
DISPLAY NOTIFICATION WITH ALARM IF APPLICABLE
274
ACQUIRE AND STORE INFUSION DATA
266
SCAN CAREGIVER ID TO OVERRIDE
280
DISPLAY INFUSION DATA
284
QUEUE INFUSION DATA MARKED AND SEND WHEN AVAILABLE
286
WRITE INFUSION DATA TO CLINICAL EVENTS
282
VERIFY INFUSION
END ADMINISTERING

FIG. 10B

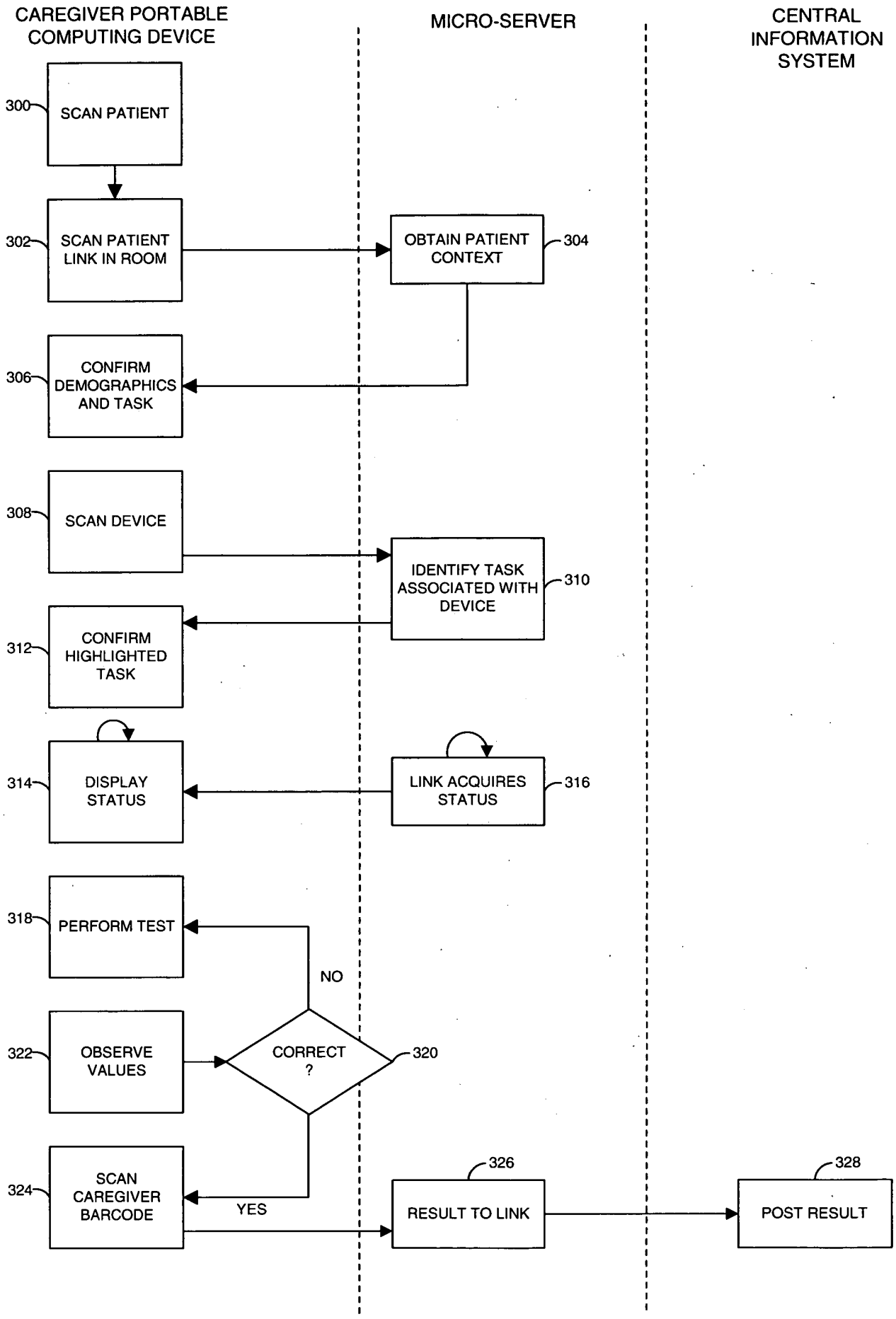
CAREGIVER PORTABLE COMPUTING DEVICE
MICRO-SERVER
CENTRAL INFORMATION SYSTEM
300
SCAN PATIENT
302
SCAN PATIENT LINK IN ROOM
OBTAIN PATIENT CONTEXT
304
306
CONFIRM DEMOGRAPHICS AND TASK
308
SCAN DEVICE
IDENTIFY TASK ASSOCIATED WITH DEVICE
310
312
CONFIRM HIGHLIGHTED TASK
314
DISPLAY STATUS
LINK ACQUIRES STATUS
316
318
PERFORM TEST
NO
322
OBSERVE VALUES
CORRECT ?
320
324
SCAN CAREGIVER BARCODE
YES
326
RESULT TO LINK
328
POST RESULT

FIG. 11

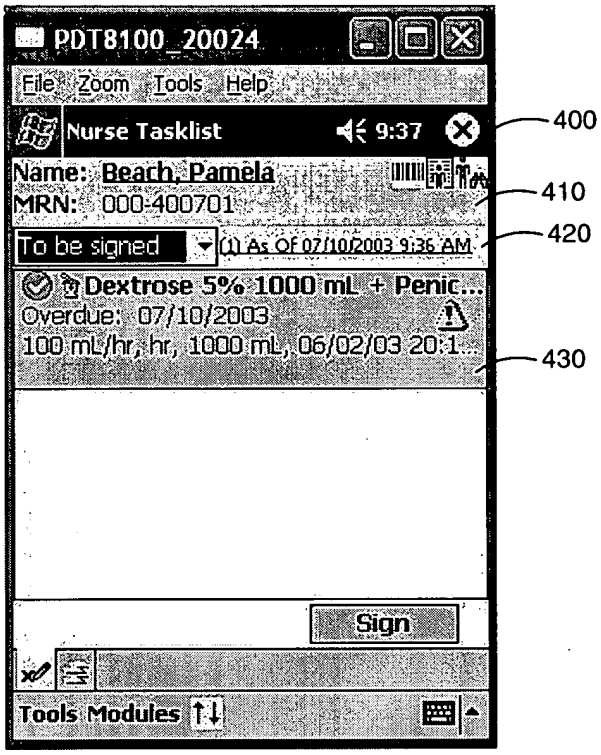
PDT8100_20024
File Zoom Tools Help
Nurse Tasklist 9:37
400
Name: Beach, Pamela
MRN: 000-400701
410
To be signed
As Of 07/10/2003 9:36 AM
420
Dextrose 5% 1000 mL + Penic...
Overdue: 07/10/2003
100 mL/hr, hr, 1000 mL, 06/02/03 20:1...
430
Sign
Tools Modules

FIG. 12